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The Prophecy of Poor Dick: The Nebraska Supreme Court Recognizes a Surface Water Appropriator's Claim Against a Hydrologically Connected Ground Water User in *Spear T Ranch, Inc. v. Knaub*

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I. INTRODUCTION

In 1757, Benjamin Franklin’s fictitious prognosticator, Poor Dick, uttered a prophetic quote: “When the well’s dry, they know the worth of water.”¹ Standing in a dry streambed, Rex Nielsen understands this better than anyone. Nielsen, owner of the Spear T Ranch, sustained his livestock with water diverted from Pumpkin Creek for more than fifty years. Today he relies on something else—a backhoe. Pumpkin Creek has run dry, and he has resorted to digging pits to find water for his cattle.

This curious ranching practice is the result of a gray area in the law. Nebraska water law embodies a dichotomy whereby ground water and surface water are governed by separate legal doctrines. By ignoring their incontrovertible hydrologic link, this dichotomy fails to address a conflict between a ground water user and a surface water user. When the Nebraska Supreme Court addressed this conflict in *Spear T Ranch, Inc. v. Knaub*,² the inevitable collision between the two inconsistent legal doctrines finally occurred. The court’s adoption of the *Restatement (Second) of Torts* to govern this dispute is the first step toward integrating water law in Nebraska. Although this decision answers some questions, it leaves much uncertainty.

This Note begins by briefly exploring the historic development of the separate doctrines of water law in Nebraska, followed by a basic outline of the complex science of ground water hydrology so that the basis of the “inevitable collision” between the inconsistent theories of law can be understood. Additionally, this Note analyzes the holding and reasoning of *Spear T Ranch* and proposes that the Nebraska Supreme Court’s opinion, while recognizing the surface water appropriator’s legal claim, creates an inherent economic burden that will be

1. BENJAMIN FRANKLIN, *THE WAY TO WEALTH* (1757).

2. 269 Neb. 177, 691 N.W.2d 116 (2005).

difficult to overcome. In support of this proposition, this Note discusses the necessary methods of proving causation and identifies its expensive and inevitable result—the “battle of the experts.”

This Note next discusses the uncertainties in the application of the *Restatement* left unanswered by the Nebraska Supreme Court, beginning with an analysis of the thin line of precedent from other jurisdictions, and concluding with a brief discussion of the “reasonableness” factors present in the *Restatement* and the interesting questions raised with their application.

II. BACKGROUND

A. The Development of Water Law in Nebraska—Two Separate Theories

In general terms, “water law” includes all law relating to the allocation and use of water. Nebraska became a state in 1866, and the territorial legislature subsequently adopted the common law of England.³ Thus, Nebraska inherited the English common law anomaly whereby surface water and ground water were governed by two separate legal doctrines. From this early split, the development of water law in Nebraska continued along separate paths.

1. Surface Water Law in Nebraska

Under English common law, surface water use was governed by the doctrine of riparianism, whereby water rights are derived from the ownership of land.⁴ The fundamental principle of the riparian doctrine is that the owner of land bordering a surface water body (a “riparian”) has a right to make reasonable use of the water, subject to the reasonable use of other riparians.⁵ This riparian doctrine proved impracticable for farmland in Nebraska. Unlike England, the lion’s share of Nebraska farmland is technically classified as “semi-arid,” making agricultural land use risky without irrigation.⁶ Since early farmers in Nebraska lacked the technology to develop ground water efficiently, Nebraska’s agricultural economy was dependent on diversion of surface water from rivers and streams.⁷ Pure riparianism stifled development since only riparian landowners had a right to this irrigation water.⁸ Nebraska responded by adopting the doctrine of

3. 1866 Neb. Laws 12, ch. VII, § 1.

4. JOSEPH L. SAX ET AL., *LEGAL CONTROL OF WATER RESOURCES: CASES AND MATERIALS* 20 (3d ed. 2000).

5. *Id.*

6. Robert Manley, *Land and Water in 19th Century Nebraska*, in *FLAT WATER: A HISTORY OF NEBRASKA AND ITS WATER* 9 (1993).

7. *Id.*

8. *In re Application A-16642*, 236 Neb. 671, 683, 463 N.W.2d 591, 601 (1990) (citations omitted).

prior appropriation.⁹ Rather than limiting water use to riparians, the doctrine of prior appropriation provides that surface water may be appropriated anywhere for any use that is beneficial. Priority is the crux of this right. First in time is first in right; the senior appropriator has the highest priority to make beneficial use of surface water.¹⁰ The doctrine of prior appropriation survives as the surface water law of Nebraska today.

2. *Ground Water Law in Nebraska*

Unlike surface water law, ground water law was premised on a rule of capture at the English common law; whatever ground water an overlying landowner could "capture" from the aquifer underlying his or her land could be used without liability.¹¹ This traditional dichotomy in water law represented a lack of understanding of ground water hydrology.¹² Indeed, this lack of accountability was based on the idea that it would be unfair to hold ground water users liable for harm to others when "no man can tell what changes these under-ground sources have undergone in the progress of time."¹³

Because of the limited technology available, most of the intricacies of ground water flow were not known in the territorial days. Moreover, since there was little ground water used for irrigation in Nebraska before 1920, there was little push for deeper scientific understanding.¹⁴ However, the next thirty years would see a tremendous growth in the use of ground water.¹⁵ The need for more efficient means of withdrawing ground water paved the way for more complete understanding of the subsurface flow of water. As the knowledge of ground water hydrology increased, Nebraska's water law developed.

a. *Moving away from "Non-Liability"—Judicial Pronouncements*

The first judicial pronouncement of ground water law in Nebraska occurred in *Olson v. City of Wahoo*.¹⁶ The plaintiff installed machinery to recover gravel from a pit for commercial purposes. The defendant, City of Wahoo, installed a large capacity municipal well to

9. This doctrine was adopted through the Irrigation Act of 1895, and later codified in NEB. CONST. art. XV, § 6. *Application A-166642*, 236 Neb. at 683, 463 N.W.2d at 601.

10. SAX ET AL., *supra* note 4, at 98-99.

11. *Id.* at 343 (quoting *Acton v. Blundell*, (1843) 152 Eng. Rep. 1228 (K.B.)).

12. *Id.* The phrase "ground water hydrology" encompasses the movement of water beneath the surface of the earth.

13. *Id.*

14. Richard S. Harnsberger et al., *Groundwater: From Windmills to Comprehensive Public Management*, 52 NEB. L. REV. 179, 186 (1973).

15. *See id.* at 187-92.

16. 124 Neb. 802, 248 N.W. 304 (1933).

supply water for power generation. As a result, the water table was sufficiently lowered to make the plaintiff's operation of the gravel pit unprofitable. The defendant argued that the English common law "non-liability" rule was applicable. However, hydrologic knowledge had progressed to the point of rendering the justifications for the common law rule moot. In recognition of this, the court set down a rule governing ground water by endorsing the American rule of reasonable use.¹⁷

In general, the reasonable-use rule allows an overlying landowner to withdraw as much ground water from the underlying aquifer as can be put to a beneficial and reasonable use.¹⁸ "What is reasonable is judged solely in relationship to the purpose of such use on overlying land; it is not judged in relationship to the needs of others."¹⁹ To this traditional definition of reasonable use, the *Olson* court added: "[I]f the natural underground supply is insufficient for all owners, each is entitled to a reasonable proportion of the whole"²⁰ This additional language is very similar to another ground-water doctrine known as the doctrine of correlative rights.²¹ Thus, the *Olson* rule is a "hybrid" rule containing aspects of both the American rule of reasonable use and the California doctrine of correlative rights. Although this language is technically dicta,²² *Olson* foreshadowed the Nebraska Supreme Court's abandonment of the total non-liability rule for ground water pumping.²³

Although clearly recognizing the basis of the plaintiff's claim for liability, the *Olson* court did not reach the merits of the case. The court stated: "[T]he plaintiffs have proved that the water level in their gravel pit has been lowered, but . . . they have failed to prove that the defendant caused such lowering."²⁴ Thus, under *Olson*, a plaintiff must make a threshold showing of causation in a ground water interference case. Only after this initial relationship is established will the modified reasonable use rule be applied by the court.

The *Olson* court's recognition of improved hydrologic knowledge resulted in a rethinking of ground water law. Although the total non-

17. *Id.* at 810-13, 248 N.W. at 307-08.

18. Harnsberger et al., *supra* note 14, at 205.

19. *Id.*

20. *Olson*, 124 Neb. at 810, 248 N.W. at 308.

21. Under the doctrine of correlative rights, each ground water user has an equal and correlative right to make a beneficial use of the ground water on his overlying land, placing quantitative restrictions only when there is an inefficient ground water supply. Harnsberger et al., *supra* note 14, at 206-07.

22. *Olson*, 124 Neb. at 810-13, 248 N.W. at 307-08 (concluding that the plaintiff failed to meet the initial burden of proof).

23. This language was later affirmed by a number of subsequent decisions. See, e.g., *Prather v. Eisenmann*, 200 Neb. 1, 7, 261 N.W.2d 766, 770 (1978) ("Our law remained as it was enunciated in *Olson v. City of Wahoo*").

24. *Olson*, 124 Neb. at 812, 248 N.W. at 308.

liability rule was abandoned, it would still be many years before there were judicial steps toward integrating the conflict between ground water and surface water law in Nebraska. The Nebraska Supreme Court often avoided the question, instead deferring to the legislature: "This . . . conflict is best resolved by the policy-based decisionmaking process that is the province of our Legislature. . . . It is the Legislature, and not the courts, which can paint a water rights picture with broad strokes and bold colors."²⁵

b. Statutory Pronouncements

Nebraska's legislature has taken limited steps towards addressing the conflict. In 1975, the legislature passed the Groundwater Management Act (GMA) giving the Natural Resource Districts (NRDs)²⁶ primary responsibility for regulating ground water.²⁷ This statute was later renamed the Ground Water Management and Protection Act (GWMMA).²⁸ The GWMMA was amended by Legislative Bill 108 in 1996 to recognize legally the connection between ground water and surface water. Pursuant to this amendment, the NRDs assume responsibility for ground water management in response to conflicts between ground water and surface water users, while authorizing the Department of Natural Resources (DNR) to similarly manage surface water.²⁹ The Nebraska Legislature's 2004 amendment to the GWMMA, Legislative Bill 962 (LB 962), retains this distinction. To summarize, although the GWMMA provides a mechanism for addressing this conflict, it does not establish a legal framework for resolving it.

B. Hydrologically Connected Ground Water and Surface Water

Prior to *Spear T Ranch*, Nebraska water law existed with separate legal treatment of ground water and surface water. In short, neither system addresses the incontrovertible fact that ground water and surface water are interrelated. In the words of noted water law scholar Professor Richard Harnsberger, "[A]ll water is interrelated and interdependent. If ground water were red, most streams would be various

25. See, e.g., *Cent. Platte Natural Res. Dist. v. Wyoming*, 245 Neb. 439, 451–52, 513 N.W.2d 847, 858 (1994).

26. Nebraska is divided into twenty-three NRDs, which are multipurpose, local units of government established to conserve, protect, develop, and manage natural resources. NRDs take their boundaries from major river basins in Nebraska.

27. Groundwater Management Act, 1975 Neb. Laws 1145.

28. NEB. REV. STAT. §§ 46-656 to -674.20 (Reissue 2004).

29. NEB. REV. STAT. § 46-703 (Reissue 2004).

shades of pink"³⁰ In order to comprehend the significance of this point, a basic knowledge of ground water hydrology is necessary.

1. *Ground Water Hydrology*

A discussion of this interrelation must begin with the hydrologic cycle. In general, the hydrologic cycle describes the continuous movement of water from the oceans to the atmosphere and back to the sea.³¹ Water evaporates from the oceans and land surfaces entering the atmosphere as water vapor and is moved over the earth by atmospheric circulation.³² The water vapor condenses and is deposited back on land as precipitation, the source of virtually all fresh water in the hydrologic cycle.³³ The precipitated water may be intercepted by vegetation, become overland flow, infiltrate into the soil, or discharge as surface runoff.³⁴

Precipitation that penetrates the earth's surface either moves laterally, eventually entering streams and rivers, or moves vertically downward into interstitial space in the subsurface rock and soil.³⁵ In addition to infiltrating precipitation, accretion to the water table, known as recharge, can originate from surface water.³⁶ This subsurface movement of ground water is very slow. The time required to finally recharge an aquifer is measured in decades or centuries rather than days or weeks.³⁷

This subsurface water exists in two zones. In the zone of saturation, the interstitial space is completely filled with water, known simply as ground water.³⁸ The upper surface of the saturated zone is at atmospheric pressure and is known as the water table.³⁹ Below this surface, the interstitial water is under hydrostatic pressure, and thus, can be withdrawn for use.⁴⁰ The saturated zone extends down to an impermeable surface, and this ground water "reservoir" is called an aquifer.⁴¹

30. Harnsberger et al., *supra* note 14, at 183.

31. See DAVID KEITH TODD & LARRY W. MAYS, GROUNDWATER HYDROLOGY 13-14 (Bill Zobrist et al. eds., 3d ed. 2005).

32. *Id.* at 13.

33. *Id.*

34. *Id.*

35. *Id.* at 37.

36. This may include natural recharge from streams or lakes as well as artificial recharge such as excess irrigation water. *Id.* at 15.

37. *Id.*

38. *Id.* at 45. Subsurface water moves downward through the unsaturated zone by gravity, eventually reaching the saturated zone. This unsaturated zone is characterized by a mixture of air and water in its interstitial space. *Id.*

39. *Id.*

40. See *id.*

41. *Id.* at 36, 45.

2. *The Interaction of Ground Water and Surface Water*

Ground water and surface water are hydrologically connected.

Streams interact with ground water in all types of landscapes. The interaction takes place in three basic ways: streams gain water from inflow of ground water through the streambed (gaining stream) . . . , they lose water to ground water by outflow through the streambed (losing stream) . . . , or they do both, gaining in some reaches and losing in others.⁴²

Whether a stream is a gaining stream or a losing stream depends on the elevation of the water table and the elevation of the stream water surface. When the elevation of the water table is higher than the elevation of the stream, ground water flows laterally toward the river discharging into the stream and augmenting its flow.⁴³ Consider a hypothetical example of such a gaining stream where ground water discharges into the stream, providing base flow. When a well is constructed near the stream, water from the aquifer flows into the well causing a depression in the water table known as the cone of depression.⁴⁴ When the ground water is hydrologically connected to the stream, the cone of depression "intercepts" water that otherwise would discharge to the stream.⁴⁵ In other words, as ground water pumping lowers the water table, the direction of the subsurface water flow changes. Once the water table is below the surface level of the stream, the stream recharges the aquifer.⁴⁶ At this point, our hypothetical stream becomes a losing stream, which translates to a loss of surface water flow. Over time, unless recharge and overland runoff are sufficient, the stream flow will eventually cease.

As long as a well is withdrawing ground water that is hydrologically connected to a stream, the transition from gaining to losing stream can occur regardless of the distance between the well and the stream. If the ground water withdrawal is excessive, increasing the distance between the well and the stream only increases the time before the effects are felt. Of course, the converse is also true. Once a gaining stream transitions to a losing stream, it may be years before the stream fully recovers even if ground water withdrawal is ceased. Rex Nielsen puts it simply: "After the [defendant's irrigation] pumps are shut off for a few months, we start getting a little bit of water back. Right now, there's a few stretches [of Pumpkin Creek] that have

42. Thomas C. Winter et al., *Ground Water and Surface Water: A Single Resource*, in U.S. GEOLOGICAL SURVEY CIRCULAR 1139, at 9 (1998).

43. *Id.*

44. For an illustration of this phenomenon, see *id.* at 15.

45. *Id.* at 14. ("Withdrawing water from shallow aquifers near surface-water bodies can diminish the available surface-water supply by capturing some of the ground-water flow that otherwise would have discharged to surface water or by inducing flow from surface water into the surrounding aquifer system.")

46. *Id.*

water in them—but it's not really flowing. When [the defendants] start irrigating, [water] just disappear[s] again."⁴⁷

C. The Rise of Ground Water Use in Nebraska

This interrelation between ground water and surface water, coupled with their distinct treatment in the law, put the two systems "on a collision course."⁴⁸ Ever since the development of the center-pivot sprinkler water distribution systems in the 1950s, Nebraska has become increasingly reliant on ground water for crop irrigation.⁴⁹ In 2000, seventy-two percent of the water consumed in Nebraska was for crop irrigation.⁵⁰ Ground water was the source of more than eighty-four percent of this water.⁵¹

Reliance on ground water will continue to rise. Since 2000, western Nebraska has suffered in the face of a severe drought. In July of 2002, the Palmer Drought Severity Index (PDSI)⁵² for the Panhandle (Climate Division 1) reached the most severe value of the instrumental record, which reliably stretches back 100 years.⁵³ This drought is similarly affecting other areas of the western United States.⁵⁴ This is significant because snowmelt from the Rocky Mountains in Colorado and Wyoming is the primary source of surface water in the North Platte Valley.⁵⁵ This water is stored in reservoirs in Wyoming and provides irrigation water for Nebraska.⁵⁶ When precipitation is scarce, so is surface water for irrigation.

47. *Supreme Court to Decide on Water Case*, SCOTTSBLUFF STAR HERALD, June 14, 2005, at A1.

48. See Harnsberger et al., *supra* note 14, at 198–203.

49. See *id.* at 210.

50. SUSAN S. HUTSON ET AL., *Estimated Use of Water in the United States in 2000*, in U.S. GEOLOGICAL SURVEY CIRCULAR 1268, at 7 (2004).

51. *Id.* at 21.

52. The Palmer Drought Severity Index provides a "dryness" factor standardized to a local climate as a function of temperature and precipitation data. It is the semi-official drought index of the National Climatic Data Center. National Oceanic & Atmospheric Administration, Information on the Palmer Drought Severity Index, <http://www.drought.noaa.gov/palmer.html> (last visited June 26, 2006).

53. National Climatic Data Center, Climate of May 2004, <http://www.ncdc.noaa.gov/oa/climate/research/2004/may/st025dv00pcp200405.html> (last visited June 26, 2006).

54. *Id.*

55. NEB. DEP'T. OF NATURAL RES., REPORT OF PRELIMINARY FINDINGS FROM A STUDY OF HYDROLOGICALLY CONNECTED GROUND AND SURFACE WATER AND ITS CONTRIBUTION TO CONFLICTS BETWEEN GROUND WATER USERS AND SURFACE WATER APPROPRIATORS IN THE NORTH PLATTE NATURAL RESOURCES DISTRICT, at 15 (2004) [hereinafter DNR REPORT].

56. *Id.*

III. *SPEAR T RANCH, INC. v. KNAUB*

In Nebraska, ground water forms the base flow of more than half of the streams in the state.⁵⁷ It is clear that excessive withdrawal of this hydrologically connected ground water can cause this base flow to disappear. As reliance on ground water increased in Nebraska, the inconsistent water law doctrines were headed for an inevitable collision.⁵⁸ As more and more ground water was withdrawn for irrigation, it was inevitable that a conflict between users of hydrologically connected ground water and surface water would result. The theories finally collided when the Nebraska Supreme Court addressed this conflict in *Spear T Ranch*.⁵⁹

A. **Facts and Procedural Posture of *Spear T Ranch, Inc. v. Knaub***

Pumpkin Creek runs through Banner and Morrill counties in western Nebraska.⁶⁰ Beginning before 1930, and continuing until the mid-1960s, Pumpkin Creek flowed between 20,000 and 30,000 acre-feet of water annually.⁶¹ The plaintiff, Spear T Ranch, Inc., held two surface water permits appropriating water for crop irrigation on the Spear T Ranch in Morrill County, Nebraska, with priority dates of 1954 and 1956.⁶² As the total number of such irrigation wells drilled in the Pumpkin Creek basin increased, stream flow began to decrease. By 1998, 543 irrigation wells had been drilled and flows fell below 10,000 acre-feet annually.⁶³ The plaintiff filed a complaint in the District Court for Morrill County, Nebraska, in February 2003 against twenty-three defendants, all of whom were ground water users.⁶⁴ The plaintiff alleged that excessive pumping of this hydrologically connected ground water had drained water from Pumpkin Creek and deprived the Spear T Ranch of its surface water appropriations, rendering it unable to provide water for livestock.⁶⁵ Under the tort theory of con-

57. RAY BENTALL & F. BUTLER SHAFFER, AVAILABILITY AND USE OF WATER IN NEBRASKA 12 (1979).

58. See, e.g., Richard S. Harnsberger, *Nebraska Ground Water Problems*, 42 NEB. L. REV. 721, 741 (1963).

59. 269 Neb. 177, 691 N.W.2d 116 (2005).

60. *Id.* at 181, 691 N.W.2d at 124.

61. LeRoy W. Sievers, *Nebraska Water Law Facing Dramatic Changes in Our State: The Spear T Ranch Case*, NEB. LAW., June 2005, at 14, 14-15.

62. The widespread use of center-pivot irrigation beginning in the 1960s contributed to the rapid increase in the number of irrigation wells in Nebraska. Therefore, these priority dates would make Spear T Ranch's appropriations senior to most wells in the Pumpkin Creek Basin. See Harnsberger et al., *supra* note 14, at 198-203.

63. Sievers, *supra* note 61, at 15.

64. *Spear T Ranch*, 269 Neb. at 179-80, 691 N.W.2d at 123.

65. *Id.* at 181, 691 N.W.2d at 124.

version, Spear T Ranch, Inc. sought an injunction from continued pumping of these irrigation wells along with compensation for the value of the surface water appropriations taken by the defendants.⁶⁶ In the alternative, Spear T Ranch, Inc. sought special damages in the amount of \$4,000,000 for the value of its water rights and other damages.⁶⁷

The defendants moved to dismiss under Rule 12(b), alleging (1) that the court lacked subject-matter jurisdiction, (2) that the complaint failed to state a claim upon which relief could be granted, and (3) that the complaint failed to join necessary parties.⁶⁸ Without giving its reasoning, the district court dismissed the complaint with prejudice on all three grounds, and Spear T Ranch appealed the decision directly to the Nebraska Supreme Court.⁶⁹ Numerous parties submitted amicus curiae briefs, including the Nebraska Attorney General's office, the City of Lincoln, Pathfinder Irrigation District, Nebraska Groundwater Management Coalition, the Nebraska Farm Bureau Federation, the Central Nebraska Public Power and Irrigation District, and the Nebraska State Irrigation Association.⁷⁰

On appeal, the plaintiff argued that the defendants' ground water withdrawals interfered with its senior surface water appropriations, and under the prior-appropriation doctrine, its rights were superior, entitling it to compensation and an injunction under the tort theory of conversion.⁷¹ In the alternative, the plaintiff argued that the ground water withdrawn in defendants' irrigation wells was hydrologically connected to his surface water appropriation and therefore subject to the doctrine of prior appropriation.⁷² The plaintiff also argued that this claim was within the jurisdiction of the Nebraska courts.⁷³

Defendants countered by arguing that ground water and surface water are distinct in Nebraska water law.⁷⁴ The defendants also argued that passage of the GWMPA⁷⁵ placed jurisdiction of such a dispute with the NRD.⁷⁶

After oral arguments held at the University of Nebraska College of Law, defendants moved for further argument and additional brief-

66. *Id.*

67. *Id.*

68. *Id.*

69. *Id.* at 182, 691 N.W.2d at 124.

70. *Id.* at 180, 691 N.W.2d at 123.

71. *Id.* at 184, 691 N.W.2d at 126.

72. *Id.*

73. *Id.* at 182, 691 N.W.2d at 124.

74. *Id.* at 181, 691 N.W.2d at 124.

75. NEB. REV. STAT. §§ 46-701 to -753 (Reissue 2004). "GWMPA" stands for "Groundwater Management and Protection Act." See *supra* text accompanying note 28.

76. *Spear T Ranch*, 269 Neb. at 181, 691 N.W.2d at 124. "NRDs" stands for "Natural Resource Districts." See *supra* text accompanying note 26.

ing.⁷⁷ Also after arguments, LB 962 was passed, changing provisions within the GWMPA. Subsequently, the court ordered additional briefing to address four issues: (1) the doctrine of primary jurisdiction; (2) primary jurisdiction in light of LB 962; (3) the effect of LB 962 on the appeal; and (4) whether the GWMPA or LB 962 abrogated any common law remedies that the plaintiff might have.⁷⁸

The court addressed three issues in its opinion: (1) whether the plaintiff has stated a claim upon which relief can be granted; (2) if so, whether passage of the GWMPA or LB 962 abrogated that claim; and (3) whether the rule of primary jurisdiction requires the court to defer to the NRD before determining these issues.

B. The Nebraska Supreme Court Opinion

The court began with the issue of whether the plaintiff could state a claim for relief. Recognizing that no statutory authority in Nebraska supports applying the prior-appropriation doctrine to ground water, the court declined to adopt the doctrine of prior appropriation to govern hydrologically connected ground water.⁷⁹ The court noted that adopting the doctrine of prior appropriation "could have the effect of shutting down all wells in any area where surface water appropriations are hydrologically connected to ground water."⁸⁰

Next, the court concluded that the right to appropriate surface water is not an ownership of property; rather water is a "public want" and a surface water appropriation is simply a right to use the water.⁸¹ "Because Spear T does not have a property interest in its surface water appropriation and only has a right to use, it cannot state a claim for conversion or trespass."⁸² This portion of the court's holding raises some interesting questions.⁸³

77. *Id.* at 182, 691 N.W.2d at 124.

78. *Id.*

79. *Id.* at 184–85, 691 N.W.2d at 126.

80. *Id.* at 185, 691 N.W.2d at 126.

81. *Id.* at 185–86, 691 N.W.2d at 127.

82. *Id.* at 186, 691 N.W.2d at 127.

83. This portion of the court's holding appears to be inconsistent with the doctrine of prior appropriation. In a series of holdings, the Nebraska Supreme Court has consistently held that the holder of a surface water appropriation holds a vested property right. *See, e.g., City of Scottsbluff v. Winters Creek Canal Co.*, 155 Neb. 723, 730, 53 N.W.2d 543, 548 (1952) ("That an appropriator of public water, who has complied with existing statutory requirements, obtains a vested property right has been announced by this court on many occasions." (quoting *Enter. Irrigation Dist. v. Willis*, 135 Neb. 827, 830, 284 N.W. 326, 329 (1939))). Seemingly, the only way this can be reconciled is by reading this part of the holding in concert with the court's refusal to apply the doctrine of prior appropriation to ground water. If this is taken as a statement that hydrologically connected ground water is not part of the stream, then the surface water appropriator's "vested right"

Although the court concluded that the plaintiff could not state a claim under prior appropriation or conversion, the analysis continued with a discussion of whether the plaintiff could state an alternative common law claim. The court first reviewed the traditional theories of ground water law. Recognizing that ground water and surface water are hydrologically connected, the court initially rejected "a rule that would bar a surface water appropriator from recovering in all situations."⁸⁴ Instead, the court held:

[T]he common law should acknowledge and attempt to balance the competing equities of ground water users and surface water appropriators; the Restatement approach best accomplishes this. The Restatement recognizes that ground water and surface water are interconnected and that in determining the rights and liabilities of competing users, the fact finder needs broad discretion.⁸⁵

Thus, the court ultimately adopted the *Restatement (Second) of Torts* section 858 as the law in Nebraska. Specifically, the *Spear T Ranch* court held:

A proprietor of land or his [or her] grantee who withdraws ground water from the land and uses it for a beneficial purpose is not subject to liability for interference with the use of water by another, unless . . . the withdrawal of the ground water has a direct and substantial effect upon a watercourse or lake and unreasonably causes harm to a person entitled to the use of its water Whether a ground water user has unreasonably caused harm to a surface water user is decided on a case-by-case basis. In making the reasonableness determination, the Restatement . . . § 850A . . . provides a valuable guide, but we emphasize that the test is flexible and that a trial court should consider any factors it deems relevant.⁸⁶

The court next offered a word of caution on remedies. Again acknowledging the hydrologic connection between ground and surface water, the court cautioned that enjoining ground water withdrawal may only serve to deprive everyone of beneficial use of water.⁸⁷ The court further suggested that a trial court could allow a surface water user to drill a well as a remedy.⁸⁸ Although the court determined that

does not apply to surface water that accedes to the water table. While this raises interesting issues, they are beyond the scope of this Note.

84. *Spear T Ranch*, 269 Neb. at 193, 691 N.W.2d at 131.

85. *Id.* at 193, 691 N.W.2d at 132.

86. *Id.* at 194, 691 N.W.2d at 132. Section 850A includes the following factors that affect the determination of reasonableness: (a) the purpose of the use; (b) the suitability of the use to the watercourse or lake; (c) the economic value of the use; (d) the social value of the use; (e) the extent and amount of harm it causes; (f) the practicality of adjusting that quantity of water used by each proprietor; (h) the protection of existing values of water uses, land, investments, and enterprises; and (i) the justice of requiring the user causing harm to bear the loss. RESTATEMENT (SECOND) OF TORTS § 850A (1979).

87. *Spear T Ranch*, 269 Neb. at 194, 691 N.W.2d at 132.

88. *Id.*

the plaintiff had failed to state a claim under the *Restatement*, it determined that leave to amend the complaint should be allowed.⁸⁹

The court then turned to the issue of whether the GWMPA or LB 962 abrogated the common law claim it recognized under the *Restatement*. First, the court determined that the GWMPA showed neither an express nor an implied abrogation of the common law.⁹⁰ Even though LB 962 took further steps to help prevent conflicts, it did not apply retroactively and therefore did not affect this appeal.⁹¹

Third, the court addressed the issue of whether the doctrine of primary jurisdiction required the court to defer to the NRD. The court noted that this appeal involves questions of law to which the primary jurisdiction doctrine did not apply.⁹² Further, NRDs are limited to taking regulatory action and enforcing those regulations to prevent future conflicts.⁹³ As such, the NRDs lack the statutory authority to provide the relief prayed for in the complaint.⁹⁴ Because of these two issues, the court concluded that exercise of the primary jurisdiction doctrine was inappropriate.

Finally, the court determined that the district court erred in dismissing the complaint for failure to join necessary parties.⁹⁵ The plaintiff is not required to join all tortfeasors as defendants in a single action for damages.⁹⁶ The case was reversed and remanded to the district court for further proceedings.⁹⁷

IV. ANALYSIS

The quintessence of the *Spear T Ranch* decision is the Nebraska Supreme Court's adoption of the *Restatement (Second) of Torts* to govern disputes between ground water and surface water users in Nebraska. With this adoption, the court recognizes a possible claim for surface water users who believe that ground water users have unreasonably interfered with their use.

This decision finally marks the judicial recognition of the hydrologic connection between ground water and surface water. More importantly, it is the first step toward integrating water law into a consistent, concrete system. However, while answering some questions, the Nebraska Supreme Court's holding in *Spear T Ranch* creates many more.

89. *Id.* at 194–95, 691 N.W.2d at 132–33.

90. *Id.* at 195–201, 691 N.W.2d at 133–36.

91. *Id.*

92. *Id.* at 201–03, 691 N.W.2d at 137–38.

93. *Id.*

94. *Id.*

95. *Id.* at 204, 691 N.W.2d at 138–39.

96. *Id.*

97. *Id.* at 204, 691 N.W.2d at 139.

Although clearly recognizing a possible claim by the surface water appropriator, the court's holding creates a tremendous financial burden to obtaining relief. The necessity of establishing causation in the complicated matrix of hydrologic data and esoteric scientific theories sets the stage for an expensive "battle of the experts" where the party with the best—and most expensive—expert will prevail.

Moreover, even if the surface water appropriator can bear the financial burden, there are still questions left unanswered by the Nebraska Supreme Court. Although the *Restatement* is clearly intended to apply to hydrologically connected ground water, there is no precedent—in Nebraska or elsewhere—that shines a definitive light on how the *Restatement* rule will be applied. This creates another burden to filing a claim under the court's holding in *Spear T Ranch*.

A. The Threshold Burden of Proof—The Battle of the Experts

The issue of causation turns on the resolution of esoteric hydrologic issues. Since the trier of fact cannot be expected to handle this issue alone, meeting this burden of proof requires a scientific expert. The role of the plaintiff's expert in a case filed under *Spear T Ranch* is to gather the necessary hydrologic data and then compile this data into a representative model. From this model, a causal link between ground water withdrawal and an adverse affect on the surface water appropriation can be established.

1. Forming a Model of the Hydrologically Connected System

A short digression here is warranted to explain the basic procedure of modeling the dynamics of a hydrologically connected system in a claim under *Spear T Ranch*. The dynamics of the system are complex; in order to adequately model the system the expert must determine the geologic makeup and subsurface flow patterns. This determination is predicated upon soil samples and a series of water samples drawn from sampling wells.⁹⁸ Once sufficient data is gathered, it requires an "astronomical number of mathematical calculations involving a massive amount of input values" to create a representative model of the hydrologically connected system.⁹⁹ Thus, the expert's ultimate conclusions are gleaned in part from predictions drawn from a computer compilation of this data.¹⁰⁰ The Nebraska Department of Natural Resources provides a typical description of the process:

98. See Winter et al., *supra* note 42, at 6–8.

99. Michael White, *Effective Use of Computer Models in Water Rights Litigation*, in WATER LAW: TRENDS, POLICIES, AND PRACTICE 24 (Kathleen Carr & James Crammond eds., 1995).

100. *Id.* For an example of such a model, see DNR REPORT, *supra* note 55.

For each area the nature of the hydrologic connection between surface water and ground water was determined by examining whether geologic materials were capable of transmitting water, the water table indicated a connection between ground water and surface water flows, the stream gage records showed evidence of base flow at some point in time or other evidence from previous studies concluding that the stream and ground water were in hydrologic connection. Hydrogeologic characteristics examined in determining whether or not a geologic formation was capable of transmitting water included hydraulic conductivity . . . and transmissivity Once a hydrologic connection was determined in a study area, the second objective of the study is to determine if there is evidence of current or future conflicts between surface water appropriators and ground water users in the area. To make this determination the DNR had to find that both surface water appropriators and ground water users relied on the hydrologically connected ground water supplies and that these supplies were not sufficient to meet all uses resulting in a conflict among users.¹⁰¹

2. *Public Records*—A “Treasure Trove”?

It is extremely expensive, often prohibitively so, to gather enough hydrologic data to form a model of a ground water system.¹⁰² Creating a conclusive ground water model requires an exorbitant amount of sampling—both in regards to the geology and to the hydrology of the system. Sampling wells must be bored both for geologic core samples and for water samples to determine the characteristics of the ground water aquifer. Gathering this information is an essential part of filing a claim under *Spear T Ranch*, but the surface water appropriator may have an unlikely ally.

One consequence of environmental regulation is a “treasure trove” of publicly available information, such as hydrologic and geologic data. Surface water users wishing to bring a claim under *Spear T Ranch* can look to this treasure trove for help. For instance, the GWMPA, as amended, provides:

By January 1 of each year beginning in 2006 . . . , the Department of Natural Resources shall complete an evaluation of the expected long-term availability of hydrologically connected water supplies for both existing and new surface water uses and existing and new ground water uses in each of the state's river basins and shall issue a report that describes the results of that evaluation.¹⁰³

The DNR recently completed an evaluation for the North Platte River Valley, the area in which the dispute in *Spear T Ranch* arose.¹⁰⁴ This evaluation was prepared through analysis of extensive geologic and hydrologic data existing in a variety of sources such as the Bureau of Reclamation, Department of Natural Resources, United States Geo-

101. DNR REPORT, *supra* note 55, at 5–6.

102. See A. DAN TARLOCK, THE LAW OF WATER RIGHTS AND RESOURCES §4.03, 4-4 to -5 (1986).

103. NEB. REV. STAT. § 46-713 (Reissue 2004).

104. See generally DNR REPORT, *supra* note 55.

logical Survey, the Conservation and Survey Division, and others.¹⁰⁵ No new data was gathered for this study, as the DNR “determined that the existing data was adequate” to make a model of the hydrologic system.¹⁰⁶ Presumably, such a “treasure trove” of information exists—or will soon exist—in many areas of Nebraska that will potentially ease the financial burden of mounting a *Spear T Ranch* claim.

Much of the information used in preparing the DNR report—including geologic data, water table maps, precipitation records, and the like—was gleaned from federal agency records.¹⁰⁷ A preliminary question is whether a surface water appropriator filing a claim under *Spear T Ranch* will have access to this information. These federal records are subject to the Freedom of Information Act, which generally provides that any person has an enforceable right to obtain access to federal agency records, to the extent that disclosure of such records is not precluded by one of several enumerated exceptions.¹⁰⁸ Relevant here, “geological and geophysical information and data, including maps, concerning wells” is exempted from disclosure under the Act.¹⁰⁹ While this information technically falls within this exemption, it is rarely invoked by federal agencies.¹¹⁰ Moreover, most of this information should be available directly from the DNR. The Nebraska Open Records Act, applicable to state agencies, has a broader scope, and contains no exemption parallel to the federal exemption.¹¹¹ Information possessed by state agencies—such as the DNR—is public record and is therefore available to the surface water appropriator.¹¹²

3. *Setting the Stage for the Battle of the Experts*

Although the DNR evaluations made pursuant to the GWMPA may ease the financial burden of filing a claim under *Spear T Ranch*, the Nebraska Supreme Court’s decision in *Schafersman v. Agland Coop*¹¹³ sets the stage for an expensive battle of the experts. In

105. *Id.* at 5.

106. *Id.* at 2.

107. *Id.*

108. See 5 U.S.C. § 552 (2004).

109. *Id.* § 552(b)(9).

110. See, e.g., DEPT OF HOMELAND SEC., FREEDOM OF INFORMATION ACT ANNUAL REPORT FOR FISCAL YEAR 2004, at 6 (2004) (reporting no uses of Exemption 9 in 2004).

111. NEB. REV. STAT. §§ 84-712.01 to -712.09 (2004).

112. Under Nebraska law, public records are broadly defined. See NEB. REV. STAT. § 84-712.01 (Reissue 2004) (“Except when any other statute expressly provides that particular information or records shall not be made public, public records shall include all records and documents, regardless of physical form, of or belonging to this state, any county, city, village, political subdivision, or tax-supported district in this state, or any agency, branch, department, board, bureau, commission, council, subunit, or committee of any of the foregoing.”).

113. 262 Neb. 215, 631 N.W.2d 862 (2001).

Schafersman, the court adopted the *Daubert-Joiner*¹¹⁴ standard on the admissibility of scientific evidence.¹¹⁵ Under the United States Supreme Court's holding in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the trial court has an obligation to "ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable."¹¹⁶ Later, in *General Electric v. Joiner*, the Court added that the "gatekeeping" function of the trial court was subject to an "abuse of discretion" standard of review.¹¹⁷

Under *Daubert*, the principle concern is "evidentiary reliability."¹¹⁸ Therefore, since *Schafersman*, scientific evidence based on established principles will no longer dominate in the courtroom. The evidence will instead be evaluated on the basis of the legitimacy of empirical research supporting the evidence.¹¹⁹ As a result, Nebraska courts will allow competing theories, so long as they are supported by a sufficient empirical basis. While the *Daubert* Court reasoned that this standard will not create a "free-for-all" in which befuddled juries are confounded by absurd and irrational pseudoscientific assertions,¹²⁰ the *Daubert* standard clearly opens the doors for competing theories to be presented to the jury.

Will competing theories be an issue in a *Spear T Ranch* claim? Under current discovery rules, all parties have full access to the basic facts of the case. At least in theory, equally qualified scientific experts should arrive at essentially the same conclusions. Indeed, the scientific principles apply equally to both sides of every case. However, a hydrologic system in the midst of a *Spear T Ranch* conflict is much more complicated than the simple hypothetical example discussed above.¹²¹ For example, in the Pumpkin Creek Basin, several hundred wells were all pumping ground water hydrologically connected to Pumpkin Creek. In such a system, there are multiple cones of interference—likely intersecting each other—affecting the water table. It is impossible to gather enough data to definitively predict the hydrologic dynamics in a system like this. As a result, the most important part of a complicated ground water system model is the set of predictions made regarding relationships within the hydrologic system. These predictions reflect the discretionary interpretations made and the opinions held by experts about those hydrologic relationships. As the system becomes more complicated, different experts will apply dif-

114. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993); *Gen. Elec. v. Joiner*, 522 U.S. 136 (1997).

115. *Schafersman*, 262 Neb. at 231, 631 N.W.2d at 876.

116. *Daubert*, 509 U.S. at 589.

117. *Joiner*, 522 U.S. at 138–39.

118. *Daubert*, 509 U.S. at 590.

119. *Id.*

120. *Id.* at 596.

121. See *supra* subsection II.B.2.

ferent assumptions regarding one or more of the relationships in the system. For example, consider the DNR evaluation completed in the North Platte River Valley. The report is not definitive; rather, it presents different conclusions based upon competing theories.¹²² One model of the extremely complex system would indicate that ground water pumping is very likely having an impact on the lowering of the hydrologically connected ground water, while another would cite the decrease in surface water storage—presumably resulting from the current drought situation—as the cause.¹²³

4. *The Best Expert Prevails*

Competing theories are the inevitable result of modeling a complicated hydrologic system and will be an expensive component of filing a claim under *Spear T Ranch*. To prevail, a party has to have the best expert—plain and simple. The “best” expert must have the scientific background to make the most credible model in the eyes of the trier of fact. In the case of complex hydrologic data and subsurface hydraulics, the trier of fact cannot make this determination alone. In a claim filed under *Spear T Ranch*, the role of the expert is to educate, so that from extensive evidence concerning the geologic and hydrologic characteristics of the system, the court can discern which of the competing theories is credible.

For example, the plaintiff in *Olson* presented an extensive ground water model completed by professors of geology from the University of Nebraska.¹²⁴ This model documented the drop of the water table in the plaintiff's gravel pit over time and indicated that the water table began to accede when defendant's pumps ceased operation.¹²⁵ The defendant presented hydrologic models compiled by four separate water experts.¹²⁶ This evidence generally indicated that the cone of depression from defendant's wells did not extend laterally far enough to intercept plaintiff's gravel pit and therefore the effect of the wells on the gravel pit was negligible.¹²⁷ Between the two competing hydrologic models, the court accepted the defendant's as the most credible. The plaintiff's extensive direct evidence, which comprised almost four hundred pages of the record, was insufficient in the eyes of the court.¹²⁸ The report failed to take into account the variability of the geologic formations, sediment buildup in the gravel pit from pumping operations, and variability in the weather identified by defendant's ex-

122. DNR REPORT, *supra* note 55, at 30.

123. *Id.*

124. *Olson v. City of Wahoo*, 124 Neb. 802, 804, 248 N.W. 304, 305 (1933).

125. *Id.* at 804, 248 N.W. at 306–07.

126. *Id.* at 806–08, 248 N.W. at 305–07.

127. *See id.*

128. *Id.* at 806, 248 N.W. at 306.

perts.¹²⁹ The defendant's experts were the best experts; the court was convinced that defendant's model was more credible and subsequently rejected the predictions of the competing model.

Again, the trier of fact cannot make this determination alone. The most credible expert creates the most credible model, and thus is the best expert in *Spear T Ranch* litigation. This requires a mastery of ground water hydrology in order to "reduce scientific and technical theories to clear, concise terminology that can be readily understood by the law trier of fact."¹³⁰ This mastery is a result of scientific training and practical experience.¹³¹ The more renowned the expert is—the more education, experience, publication, and research on his or her resume—the more credible the expert is. This background does not come cheap. Moreover, presenting a credible model requires a tremendous time investment. "The expert who knows the site . . . from extensive personal examination thereof will have an advantage over the expert that has only read [discovery documents]."¹³² In sum, the best expert is the most educated, most experienced, most esteemed expert, who puts in the most time preparing the model and scientific theories for the case; the best expert is the most expensive expert.

Therefore, the Nebraska Supreme Court's holding in *Spear T Ranch* contains an inherent financial contingency: The plaintiff must bear a tremendous economic burden. If the plaintiff surface water appropriator cannot afford the best expert, it will be impossible to prevail. Since the best expert is also the most expensive expert, this is an economic burden that many will not be able to bear.

B. The Uncertainty Burden—The *Restatement* Rule

Provided a claimant can meet the preliminary burden of establishing causation, the surface water appropriator faces another burden—the uncertainty in how the *Restatement (Second) of Torts* will be applied. Unfortunately, the cases listed by the *Spear T Ranch* court as evidence of a "modern trend" of adoption of the *Restatement* rule offer no guidance resolving this uncertainty.¹³³ To date, the legal precedent offers no insight on how the *Restatement* rule may be applied by a state supreme court in *Spear T Ranch* litigation.¹³⁴ Section 858 has

129. *Id.* at 808–09, 248 N.W. at 307.

130. Daniel Riesel, *Scientific Proof and Examination of Experts in Environmental Litigation*, in A.L.I.–A.B.A. COURSE OF STUDY: ENVIRONMENTAL LITIGATION 545, 590 (2005).

131. See, e.g., *Olson*, 124 Neb. 802, 248 N.W. 304 (relying on testimony from experts with advanced scientific degrees, extensive practical experience, or both).

132. Riesel, *supra* note 130.

133. See TARLOCK, *supra* note 102, § 4.18.

134. See *Maerz v. U.S. Steel Corp.*, 323 N.W.2d 524 (Mich. 1982); *Cline v. Am. Aggregates Corp.*, 474 N.E.2d 324 (Ohio 1984); *State v. Michels Pipeline Constr., Inc.*, 217 N.W.2d 339 (Wis. 1974).

been applied to a thin line of cases involving de-watering operations, but courts have merely adopted the *Restatement* rule without discussing its application.¹³⁵ In *Sipriano v. Great Spring Waters of America*¹³⁶ the Texas Supreme Court addressed a dispute between two competing ground water users. While the court considered adopting the *Restatement* to govern such disputes, the case was ultimately decided under an alternative theory. In *Wiggins v. Brazil Coal & Clay Corp.*, the only case involving a dispute over interconnected ground water and surface water, the Indiana Supreme Court similarly declined to adopt section 858.¹³⁷

1. *The Immediacy Requirement*

The comments in the *Restatement (Second) of Torts* offer some guidance in applying section 858. "If the withdrawal of *adjacent ground water* has a *more or less immediate* and substantial effect upon the stream of flowing water, it is an interference with the watercourse, although it occurs outside the channel that defines the watercourse."¹³⁸ The italicized language is significant because the affects of withdrawal of hydrologically connected ground water are seldom immediate, particularly where they occur some distance from the surface water.¹³⁹ The *Restatement* describes a scenario where farmers drill wells at varying distances from a river.¹⁴⁰ Each well has a miniscule effect on the river, but in concert the wells eventually reduce the flow of the river. The *Restatement* states that the farmers are withdrawing ground water and are free from liability to surface water appropriators.¹⁴¹ In another illustration, a city drills a number of high capacity wells near a river.¹⁴² These wells lower the water table enough so that a downstream surface water user suffers substantial harm. In this situation, the *Restatement* states that the city is subject to liability to the surface water user.¹⁴³ It is tempting to conclude that the *Restatement* reaches these conclusions because the rule applies specifically to withdrawals of "adjacent" ground water and that the effect must be "more or less immediate"—both conditions being present in the second illustration and not the first. This would eliminate a large portion of the claims by surface water users in Nebraska affected by hydrologically connected ground water withdrawals. Therefore, a preliminary issue is whether the *Restatement* applies to all hydrologically

135. See cases cited *supra* note 134.

136. 1 S.W.3d 75 (Tex. 1999).

137. 452 N.E.2d 958 (Ind. 1983).

138. RESTATEMENT (SECOND) OF TORTS § 858 cmt. h (1979) (emphasis added).

139. See *supra* section II.B.

140. RESTATEMENT (SECOND) OF TORTS § 858 illus. 6 (1979).

141. *Id.*

142. *Id.* illus. 5.

143. *Id.*

connected ground water. A closer reading of the comments indicates that section 858 is indeed intended to have a broader application.

First, the *Restatement* clearly intended for section 858 to apply to hydrologically connected ground water and surface water. Comment h states:

A typical stream is fed not only by visible springs and surface runoff at its source but also by accretions throughout its length from ground water
*The channels of most streams are not impervious conduits and, depending on the level of the adjacent water table . . . the stream loses water to the earth.*¹⁴⁴

This is a clear recognition of the interaction of hydrologically connected ground water and a stream. The *Restatement* refers to the interrelated water table as "adjacent" which indicates that "adjacent" is intended to mean "hydrologically connected."¹⁴⁵ Therefore, the difference in these illustrations cannot be explained in terms of "adjacent" ground water withdrawals.

Instead, the different conclusions can be best explained by policy considerations sought to be furthered by the rule. Consider the requirement of a "more or less immediate" effect on the watercourse. Section 858 was intended to further the policy of encouraging ground water use by permitting those who have access to it virtually unrestricted development.¹⁴⁶ Because of the characteristically slow movement of ground water, enjoining ground water withdrawal is inconsistent with this goal because the system may not respond in time to serve any ameliorative purpose.¹⁴⁷ However, to the extent that it can be accomplished, allowing a surface water user to maintain his use is consistent with this policy.

Consider the first illustration above; this is exactly a situation where enjoinder of the ground water withdrawal would have a negligible ameliorative effect. By the time that the water table is lowered sufficiently to affect the stream flow, it is too late for a "quick fix."¹⁴⁸ More importantly, there is no mention of any harm to the downstream users—only that the flow of the river is reduced. Therefore, the downstream user is not necessarily prevented from use of the water, and the policy of section 858 would not be furthered by ceasing the ground water withdrawal.

Conversely, in the second illustration the zone of interference from the city's wells would most certainly intersect with the river. Therefore, an injunction of this ground water withdrawal could have an immediate effect. Furthermore, the harm suffered by the downstream user is "substantial." This is likely the more important observation,

144. *Id.* cmt. h (emphasis added).

145. *Id.*

146. *Id.* cmt. b.

147. See Winter et al., *supra* note 42, at 3.

148. See *supra* section II.B.

as a user that is “substantially” harmed is presumably all but prevented from his surface water use—and allowing this certainly does not further the policy of section 858.

In sum, while the immediacy requirement may have been intended to preclude injunctive claims by surface water users, a careful reading of the comments accompanying section 858 cannot support the conclusion that it precludes every claim. Every withdrawal of hydrologically connected ground water can affect a surface water user, whether the effect is “immediate” or not. It is simply not consistent with the policy of section 858 to deny a claim by a surface water user, such as the Spear T Ranch, who suffers substantial harm as a result of the gradual effect of ground water withdrawal.

The holding of the *Spear T* court is in accord. The court states:

Initially, we reject a rule that would bar a surface water appropriator from recovering in all situations. Such a rule would ignore the hydrological fact that a ground water user's actions may have significant, negative consequences for surface water appropriators.¹⁴⁹

In addition, the court cautions that an injunction on ground water withdrawals would be “unreasonable and inequitable” when ground water hydraulics dictate that ameliorative effects on the surface water body will not be quickly realized.¹⁵⁰ This is a clear recognition of the policy of promoting efficient water use for all. Therefore, it is unlikely that the Nebraska Supreme Court intends for the rule to apply only to ground water withdrawal with “more or less immediate” effects on the surface water user.

2. Reasonableness Factors

Since it is clear that the *Restatement* is intended to apply to hydrologically connected ground water, a final uncertainty regards the application of the “reasonableness” factors in section 850A. Prospective litigants can merely speculate on how these factors may be applied by the Nebraska Supreme Court. However, some inferences are readily drawn.

It is clear that the first five factors involve a balancing test whereby the court will look at the competing water uses and determine which use is more justified based on social and economic concerns.¹⁵¹ In most situations where this balancing test is applicable, the dispute will likely be resolved using the preference statute in Nebraska.¹⁵² The preference statute gives priority to ground water use in the following order: (1) domestic ground water use; (2) agricultural

149. *Spear T Ranch, Inc. v. Knaub*, 269 Neb. 177, 193, 691 N.W.2d 116, 131–32 (2005).

150. *Id.* at 194, 691 N.W.2d at 132.

151. See RESTATEMENT (SECOND) OF TORTS § 850A(a)–(e) (1979).

152. NEB. REV. STAT. § 46-613 (Reissue 2004).

use; and finally (3) industrial use.¹⁵³ This statute essentially codifies Nebraska's answer to how the first five factors of section 850A should be applied. As such, disputes between competing users with unequal rights are quickly disposed. For instance, in *Prather v. Eisenmann*, the Nebraska Supreme Court relied solely on the preference statute to resolve a dispute between a domestic well and an irrigation well.¹⁵⁴ While the court discussed the *Restatement* rule, it concluded that it was unnecessary to reach that issue when one party has preferential rights.¹⁵⁵

However, in a situation such as the one present in *Spear T Ranch*, each party's water use serves an equally beneficial—indeed identical—purpose. The controversy cannot be solved by simply balancing the interest of the parties. Of the remaining factors, section 850A(f) is most relevant in a dispute between a surface water user and a ground water user. Under section 850A(f), the inquiry regards “the practicality of avoiding the harm by adjusting the use or method of use of one proprietor or the other.”¹⁵⁶ This inquiry creates many more questions.

In the case of the Spear T Ranch, the simplest, most economical solution is for the ranch to drill a well—a solution mentioned by the court.¹⁵⁷ “[A] court can consider a surface water appropriator's ability to obtain an exception to stays on drilling new wells. . . .”¹⁵⁸ However, this scenario is contingent on the ability of a possible claimant to secure adequate relief without the court's assistance. Pursuant to the GWMPA, if the DNR makes a preliminary determination that a river basin is fully appropriated or over appropriated, the NRD must issue an immediate stay prohibiting construction of new water wells, or the expansion of irrigated acres.¹⁵⁹ Therein lies the rub: Logically, the underlying cause of the *Spear T Ranch* conflict is the fact that the river basin is either fully or over appropriated. If the basin is not at least fully appropriated then ground water withdrawal should not adversely affect surface water; there should be no conflict. Under the GWMPA, when a basin is so designated, a new well can be constructed only pursuant to the NRD granting a variance for “good cause shown.”¹⁶⁰

Therefore, another question is whether the surface water users will be allowed to become ground water users; whether the loss of a viable use of surface water will suffice for “good cause.” On one hand,

153. *Id.*

154. 200 Neb. 1, 9–11, 261 N.W.2d 766, 771 (1978).

155. *Id.*

156. RESTATEMENT (SECOND) OF TORTS § 850A(f) (1979).

157. *Spear T Ranch, Inc. v. Knaub*, 269 Neb. 177, 194, 691 N.W.2d 116, 132 (2005).

158. *Id.*

159. NEB. REV. STAT. § 46-714 (Reissue 2004).

160. *Id.* § 46-714(3)(j).

it seems inconsistent with the policy of the court to deny a beneficial use of water. The *Spear T Ranch* court cautions that an injunction on ground water withdrawals would be "unreasonable and inequitable" when ground water hydraulics dictate that ameliorative effects on the surface water body will not be quickly realized.¹⁶¹ This is a clear recognition of a policy of promoting efficient water use for all. With this in mind, it seems plausible that the answer is to consider the loss of viable surface water use "good cause."

On the other hand, however, the implications of this solution are obvious. Increasing ground water withdrawal in a river basin that is fully appropriated will result in the total disappearance of the river. Promoting water use can not be carried to the extent that all of Nebraska's streams and rivers are sucked dry by ground water pumping. The disappearance of surface water in Nebraska carries many environmental and economical consequences, perhaps outweighing the concerns of the surface water user.¹⁶² In other words, the "simple and economical" solution of allowing surface water appropriators to revert to ground water is hardly simple and not necessarily economical.

Moreover, if the surface water appropriators are to become ground water users, who will bear the financial burden for the modification of use? The *Restatement* offers:

As development proceeds and demands on the water resource increase, the requirements of efficiency may change so that what was not wasteful may become wasteful. A water user who first initiated his project may have enjoyed the good fortune of cheap diversion and use for a time, but may have to pay costs common to others similarly situated when development approaches the maximum use of the resource and all uses must be of comparable efficiency.¹⁶³

Few would argue that when water allocation is tight, the most efficient means of water use should be promoted. From an efficiency standpoint, ground water is certainly an attractive resource. For example, it is necessary to construct dams to store water in reservoirs and to maintain a network of canals and ditches to make surface water irrigation possible.¹⁶⁴ Surface water irrigation results in significant water loss due to evaporation, and still more is lost through unlined canal systems.¹⁶⁵ Along that line of reasoning, a plausible

161. *Spear T Ranch*, 269 Neb. at 194, 691 N.W.2d at 132.

162. Although the protection of instream flows for environmental and recreational purposes raises interesting issues, it is beyond the scope of this Note. For a discussion of the public interest in Nebraska's water resources, see Peter J. Longo & Bruce Elder, *Judicial Recognition of the Public Interest in Water Recreation: Nebraska and the United States Supreme Court Realities*, 15 PUB. LAND L. REV. 199 (1994).

163. RESTATEMENT (SECOND) OF TORTS § 850A(f) cmt. h (1979).

164. ROBERT GLENDON, WATER FOLLIES 28 (2002).

165. *Id.*

solution is to hold the surface water user financially responsible for the modification of use.

At the same time, the ground water users seem to hold a comparative financial advantage over the surface water appropriator. Indeed, an affected ground water user must merely drill a deeper well. In contrast, a surface water appropriator incurs additional expense developing a ground water use, such as purchasing and installing a pump, providing power, etc. The *Restatement* provides that "[l]ater users with superior economic capacity should not be allowed to impose upon smaller water users costs that are beyond their economic reach or that will render their uses unprofitable."¹⁶⁶ For instance, the collective defendants in the *Spear T Ranch* litigation represent a water use that dwarfs that of the plaintiff. Dividing this cost among these defendants will impose the least "individual" financial burden.

V. CONCLUSION

Although many uncertainties remain after *Spear T Ranch*, ultimately the question becomes one of economics. Will the financial burden of establishing causation keep these cases out of the courtroom? Since the surface water appropriator must bear the financial burden of winning the "battle of the experts," the threshold burden of proving causation under *Spear T Ranch* will preclude many potential claims. Therefore, perhaps the surface water appropriator will decide to simply develop ground water for irrigation. However, this modification of use raises the same questions as applying section 850(f) of the *Restatement*. Will the policy of promoting the use of water be carried to the point that surface water disappears in Nebraska? If so, who will bear the burden of the modification of use?

Spear T Ranch takes a step towards integrating the hydrologic realities of ground water into Nebraska's water law. The Nebraska Supreme Court also pointed a finger at the legislature: "We recognize that most legislatures in western states have developed comprehensive appropriation systems overseen by administrative agencies. But in Nebraska, the Legislature has not developed an appropriation system that addresses direct conflicts between users of surface and ground water that is hydrologically connected."¹⁶⁷ Until the Legislature takes further action, these disputes will be fought out in court. Many lawsuits may have to be filed by surface water appropriators against their neighbors before these questions are answered.

Meanwhile, the situation remains critical for surface water users like the *Spear T Ranch*. Rex Nielsen wishes that Nebraska would

166. RESTATEMENT (SECOND) OF TORTS § 850A(f) cmt. h (1979).

167. *Spear T Ranch v. Knaub*, 269 Neb. 177, 185, 691 N.W.2d 116, 126 (2005).

hurry up. "The bad part is they are still lowering the water table out there. There's a limit to how deep you can dig for water."¹⁶⁸

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168. *Supreme Court to Decide on Water Case*, *supra* note 47, at A1.